

**POPEHENKOVA, Z.A.**

Effect of cortisone on typhoid intoxication in rabbits [with summary in English]. *Biul. eksp. biol. i med.* 44 no.12:57-61 D '57.

1. Iz otdela eksperimental'noy khimioterapii Instituta farmakologii i khimioterapii (dir. - deystvitel'nyy chlen AMN SSSR V.V.Zakusov) AMN SSSR, Moskva. Predstavlena deystvitel'nyy chlenom AMN SSSR V.V.Zakusovym.

(SALMONELLA TYPHOSA,  
toxin, eff. of cortisone on rabbit response (Rus))  
(CORTISONE, effects,  
on Salmonella typhosa toxin eff. in rabbit (Rus))

USSR / Pharmacology, Toxicology. Histamine and Antihistamines. V

Abs Jour: Ref Zhur-Biol., No 18, 1958, 85183.

Author : Popenenkova, Z. A., Kharitonova, A. M.

Inst : Not given.

Title : The Influence of Dimedrol on Biochemical and Histological Changes in the Adrenals of Rabbits Infected with Pneumococci.

Orig Pub: Farmakol. i toksikologiya, 1958, Vol 21, No 1, 57-64.

Abstract: In pneumococcus infection in rabbits, there is a considerable reduction in the amount of ascorbic acid first in the cortical, and later also in the medullary, layer of the adrenals (A), as well as a reduction of adrenalin in them, which the authors attribute to increased stimulation of the A by

Card 1/2

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POPENENKOVA, Z.A.

Effect of diazoline on typhoid intoxication in rabbits, author's abstract. Farm. i toks. 21 no.4:86-87 J1-Ag '58 (MIRA 11:11)

1. Otdel khimioterapii (zav. - chlen-korrespondent AMN SSSR prof. Planel'yes Kh.Kh.) Instituta farmakologii i khimioterapii AMN SSSR.

(ANTHISTAMINICS, effects,

diazoline, on exper. Salmonella typhosa intoxication in rabbits (Rus))

(SALMONELLA TYPHOSA,

toxin, eff. of diazoline on intoxication in rabbits (Rus))

POPENENKOVA, Z.A.

Effect of tetracyclines on the adrenals in rabbits. Antibiotiki  
5 no.3:44-48 My-Je '60. (MIRA 14:6)

1. Otdel khimioterapii Instituta farmakologii i khimioterapii  
AMN SSSR.

(TETRACYCLINE)

(ADRENAL GLANDS)

POPENENKOVA, Z.A.

Change in the serotonin content of the blood and organs of rabbits following typhoid intoxication. Biul. eksp. biol. i med. no.2: 32-36 F '61. (MIRA 14:5)

1. Iz otdela infektsionnoy patologii i eksperimental'noy terapii infektsiy (zav. - chlen-korrespondent AMN SSSR prof. Kh.Kh.Planel'yes) Instituta epidemiologii i mikrobiologii imeni N.F.Gamalei (dir. - prof. S.N.Murontsev) AMN SSSR, Moskva. Predstavlena deystvitel'nym chlenom AMN SSSR M.A. Morozovym.  
(SEROTONIN) (TYPHOID FEVER)

POPENENKOVA, Z.A.; ZAVENYAGINA, T.H. (Moskva)

Effect of pyrogenal on the serotonin and histamine content  
in the blood. Pat. fiziol. i eksp. terap. 6 no.6:68-69 N-D'62  
(MIRA 17:3)

1. Iz otdela infektsionnoy patologii i eksperimental'noy tera-  
pii infektsiy ( zav. - chlen -korrespondent AMN SSSR prof.  
Kh.Kh. Planel'yes) Instituta epidemiologii i mikrobiologii  
imeni akademika N.F. Gamalei AMN SSSR.

POPENENKOVA, Z.A.; ZAVENYAGINA, T.N.

Effect of serotonin (5-hydroxytryptamine) and 5-hydroxytryptophan on the mortality of animals in experimental pneumococcal infection and typhoid intoxication. Biul.eksp.biol.i med. 53 no.6:48-51 Je '62. (MIRA 15:10)

1. Iz otdela infektsionnoy patologii i eksperimental'noy terapii infektsiy (zav. - chlen-korrespondent AMN SSSR prof. Kh.Kh. Planel'yes) Instituta epidemiologii i mikrobiologii imeni N.F. Gamalei (dir. - chlen-korrespondent AMN SSSR prof. O.V.Baroyan) AMN SSSR, Moskva. Predstavlena deystvitel'nym chlenom AMN SSSR L.A.Zil'berom.  
(SEROTONIN) (TRYPTOPHAN) (PNEUMOCOCCAL INFECTIONS)  
(TYPHOID FEVER)

POPENENKOVA, Z.A. (Moskva)

Quantitative changes in the serotonin and thrombocytes in the blood of animals with typhoid intoxication and experimental pneumococcal infection. Pat.fiziol.i eksp.terap. 6 no.2:35-39 Mr-Ap '62.

(MIR# 15:8)

1. Iz otdela infektsionnoy patologii i eksperimental'noy terapii infektsiy (zav. - chlen-korrespondent AMN SSSR prof. Kh.Kh.Planel'-yes) Instituta epidemiologii i mikrobiologii imeni N.F.Gamalei AMN SSSR.

(SEROTONIN) (BLOOD PLATELETS) (PNEUMOCOCCAL INFECTIONS)  
(TYPHOID FEVER)

ACCESSION NR: AP4026374

S/0219/64/057/005/0059/0061

AUTHOR: Popenenkova, Z. A.

TITLE: Effect of antibiotic therapy on the serotonin and histamine levels in the blood and organs of irradiated rabbits

SOURCE: Byul. eksper. biologii i meditsiny\*, v. 57, no. 3, 1964, 59-61

TOPIC TAGS: X-irradiation 950 r dose, serotonin level, 5-oxytryptamine level, histamine level, antibiotic therapy, penicillin, streptomycin, levomycetin, blood, brain, small intestine

ABSTRACT: Ninety-six male rabbits were investigated to find quantitative changes in serotonin (5-oxytryptamine, 5-OT<sub>A</sub>) and histamine levels in the blood and organs of irradiated and nonirradiated animals after prolonged antibiotic therapy. The animals were divided into 4 groups: 1) irradiated, 2) irradiated and treated with antibiotics, 3) nonirradiated and treated with antibiotics, and 4) nonirradiated and given physiological solutions. Animals in the first two groups were X-irradiated with a single 950 r dose. Antibiotic therapy was started

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ACCESSION NR: AP4026374

12 to 15 hrs later with penicillin and streptomycin (10,000 units) administered intramuscularly and levomycetin (100 mg) administered orally twice a day for 3 weeks. 5-OTA and histamine levels in the blood were determined for all groups under normal conditions and were determined for irradiated groups in the blood and organs 1, 3, 7, 10, 14, and 21 days after irradiation. 5-OTA was extracted from the blood and organs with acetone for two days at 4 to 5°C and histamine was extracted with trichloroacetic acid for 24 hrs at the same temperature. 5-OTA was determined quantitatively on an isolated atropinized rat colon and histamine was determined on an isolated atropinized guinea pig ileum intestine at 37°C. Findings show that a single 950 r dose sharply reduces the 5-OTA and histamine levels in the blood, brain, and small intestine because the number of blood thrombocytes is reduced and enzyme systems which contribute to the formation and metabolism of these biogenic amines are disturbed. Prolonged antibiotic therapy had no significant effect on the sharp reduction of 5-OTA and histamine levels in the blood, brain, and small intestine. Orig. art. has: None.

ASSOCIATION: Otdel infeksionnoy patologii i eksperimental'noy

Card 2/3

ACCESSION NR: AP4026374

terapii infektsii instituta epidemiologii i mikrobiologii im. N. F. Gamalei AMN SSSR, Moscow (Department of Infectious Disease Pathology and Experimental Infectious Disease Therapy of the Epidemiology and Microbiology Institute, AMN SSSR)

SUBMITTED: 04Feb63

ENCL: 00

SUB CODE: 1S

NR REF SOV: 006

OTHER: 015

Card 3/3

POPENENKOVA, Z.A.

Quantitative changes in serotonin, histamine and formed elements  
of the blood of irradiated rabbits following antibiotic therapy.  
Radiobiologia 4 no.5:788-790 '64. (MIRA 18:4)

1. Institut epidemiologii i mikrobiologii imeni Gamalei AMN SSSR,  
Moskva.

POFENENKOVA, Z.A.

Effect of antibiotics on the content of sericins and caseins in  
blood and organs of normal rabbits. Antibiotiki 9 no. 3, 1964, No. 10.

(MIRA 1964)

1. Otsled infektsionnoy patologii i eksperimental'noy terapii infektsionnykh  
(zav. - chlen-korrespondent AMN SSSR prof. Kh. Kh. Buzduganov) i oshchibki  
epidemiologii i mikrobiologii agent N. F. Surovskiy AMN SSSR, Moskva.

POPENENKOVA, Z.A.

Excretion of 5-hydroxyindoleacetic acid with the urine of rats in experimental pneumococcal infection and penicillin therapy. Antibiotiki 9 no.12:1085-1088 D '64. (MIRA 18:7)

1. Otdel infektsionnoy patologii i eksperimental'noy terapii infektsiy (zav. - chlen-korrespondent AMN SSSR prof. Kh.Kh.Planel'yes) Instituta epidemiologii i mikrobiologii imeni Gamalei, Moskva.

PLANEL'YES, Khuan Khuanovich; POPENENKOVA, Zoya Andreyevna;  
USPENSKIY, V.I., red.

[Serotonin and its role in infectious pathology] Sero-  
tonin i ego znachenie v infektsionnoi patologii. Moskva,  
Meditsina, 1965. 225 p. (MIRA 18:12)

POPENKOVA, Z.A.

Effect of iprazid on the death rate of animals in experimental pneumococcal infection and typhoid fever intoxication. Pat. fiziol. i eksp. terap. 9 no.1:62-63 Ja-F '65. (MIRA 18:11)

1. Otdel infektsionnoy patologii i eksperimental'noy terapii infektsiy (zav. - prof. Kh. Kh. Planal'yev) Instituta epidemiologii i mikrobiologii imeni N.F. Gamalei (direktor - prof. P.A. Vershilova) AMN SSSR, Moskva.

POPENENKOVA, Z.A.; GUSEVA, Ye.V.

Effect of indopan, a monoamine oxidase inhibitor, on the sensitivity of white mice and rats to tetracycline and pneumococcal infection. Antibiotiki. 10 no.5:432-435 My '65. (MIRA 18:6)

1. Otdel infektsionnoy patologii i eksperimental'noy terapii infektsiy (zav. - chlen-korrespondent AMN SSSR prof. Kh.Kh. Planel'yes) Instituta epidemiologii i mikrobiologii imeni Gamalei AMN SSSR, Moskva.

POFENENKOVA, Z.A.; GUSEVA, Ye.V.

Effect of indopan, a monoamine oxidase inhibitor, on the sensitivity of rats and mice to antibiotics. Farm. i toks. 28 no.6:734-737 (MIRA 19:1)  
N-D '65.

1. Otdel infektsionnoy patologii i eksperimental'noy terapii infektsiy (zav. - chlen-korrespondent AMN SSSR prof. Kh.Kh. Planel'yes) Instituta epidemiologii i mikrobiologii imeni N.F. Gamalei AMN SSSR, Moskva.

ACC NR: AM6029769

Monograph

UR/

Yurchenko, Yu. F.; Guma, V. V.; Roshchin, V. V.; Grinenko, V. I.; Popenko, V. S.; Kurkumeli, A. A.

Fitting and welding of corrosion-resisting steel piping in the atomic industry (Montazh i svarka truboprovodov iz korrozionnostoykikh staley v atomnoy promyshlennosti) Moscow, Atomizdat, 1966. 248 p. illus., biblio. 2,800 copies printed.

TOPIC TAGS: pipeline, welding, automatic welding, welding technology

PURPOSE AND COVERAGE: The authors discuss current practices in assembling and welding pipelines from corrosion-resistant steels, designated for use in aggressive media in atomic industry. Existing techniques are evaluated and recommendations are made on the selection of appropriate methods, whose technical and economic indices are cited. Welding operations and equipment, and assembly and welding machinery are described; automatic welding and the complete automation of assembly operations are emphasized. The book is intended for engineers and technicians and all specialists working in design and assembly shops of plants and research institutes specializing in the welding of corrosion-resistant steels. There are 108 references of which 56 are Soviet.

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UDC: 621.643.44.4:669.14.018.6

ACC. NR: AM6029769

**TABLE OF CONTENTS (abridged):**

- Foreword -- 3
- Ch. I. General requirements for pipelines made from corrosion-resistant steels -- 7
- Ch. II. Basic materials and welding materials used in the production of pipelines -- 20
- Ch. III. Pipeline welding -- 20
- Ch. IV. Preparing pipelines for welding -- 104
- Ch. V. Welding equipment -- 129
- Ch. VI. Organization of pipe-assembly operations -- 189
- Ch. VII. Quality control of welded pipe joints -- 202
- Ch. VIII. Safety measures -- 236

SUB CODE: 13/ SUBM DATE: 20Apr66/ ORIG REF: 081/ OTH REF: 027

Card 2/2

KARLIK, A.B., inzh.; POPENKO, M.D., inzh.

Determining the allowances for tricot shrinkage during cutting  
and sewing. Tekst. prom. 24 no.3: 53-54 Mr '64. (MIRA 17:9)

YERGALIYEV, A.Ye.; KUZNETSOV, I.Ye.; YURKOV, V.N.; POPENKO, M.Kh.;  
OSIPOV, A.V.

Development of systems of mining at the Belousovka Mine. Trudy  
Alt. GMI AN Kazakh. SSR 10:3-11 '61. (MIRA 14:9)  
(Altai Mountains--Mining engineering)

POPENKO, S.N.

Using the slicing method in prospecting. Uzb.geol.zhur, 6  
no.2:59-62 '62. (MIRA 15:4)

1. Glavnoye upravleniye geologii i okhrany nedr pri Sovete  
Ministrov UzSSR.

(Prospecting)

ACC NR: AP7001837

(A)

SOURCE CODE: UR/0135/66/000/012/0009/0011

AUTHOR: Alekin, L. Ye. (Candidate of technical sciences); Zorin, Yu. N. (Candidate of technical sciences); Razzhivin, V. N. (Engineer); Guma, V. V. (Engineer); Popenko, V.S. (Engineer)

ORG: none

TITLE: Methods of determining the regulation characteristics of a low-amperage arc in argon

SOURCE: Svarochnoye proizvodstvo, no. 12, 1966, 9-11

TOPIC TAGS: motion picture camera, current source, welding inspection, arc welding, welding technology / Kiev 16S-2 motion picture camera, IP-50 current source

ABSTRACT: At present argon-arc welding by means of automatic welding machines (AWM) with a nonconsumable electrode is widely employed to weld parts of stainless steel 0.2-1.0 mm thick in argon with the aid of positive-polarity direct current with an 0.25-3.0 mm long arc. The intensity of the welding current ranges from 1.0 to 70 a. The ultimate purpose of regulation is to produce a welded joint of high quality. But since the AWM affects directly not the

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UDC: 621.791.75.01

ACC NR: AP7001837

weld but the arc, this regulation can be accomplished only if the regulation characteristic, i. e. the dependence of voltage on arc length, is known, since the AWM reacts directly not to the length but to the voltage of the arc. Normally the regulation characteristic is determined by static tests or from a recalculation of volt-ampere characteristics of the arc, but this does not reveal all the features of the regulation characteristic, particularly for the welding of parts 0.2-0.5 mm thick with the aid of a short arc with currents of less than 30 a. Of special practical interest in this connection is the part of the regulation characteristic corresponding to arcs of less than 0.5 mm in length; if in this case the voltage is either virtually independent of the arc length or increases with decreasing arc length, then even a highly sensitive feedback-type AWM cannot assure the regulation of arc length with respect to voltage. To eliminate this difficulty, the authors developed a new method of determining the regulation characteristic, based on the following considerations: Since the regulation characteristic represents the dependence of  $U_0$  on  $L_0$ , a continuous curve can be plotted during continuous movement of the electrode. At the same time, in order to gain the correct idea of the arc length, the position of the arc column must be checked in two mutually perpendicular planes and the plunge of the arc into the metal prevented. This new method provides for the simultaneous examination of the arc from both sides by means of two Kiev 16S-2 motion picture cameras (16 frames per second) positioned at right angles to each other so that the position of the arc column and the length of the arc can be accurately determined. A corresponding experimental setup was con-

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ACC NR: AP7001837

structed (Fig. 1): its principal components are: welding torch 1, mechanism 2 for vertical movement of welding torch, at the rate of 0.2-2.0 mm/sec, rotator 3, chuck 4 for attachment of welding heat, and table 5.

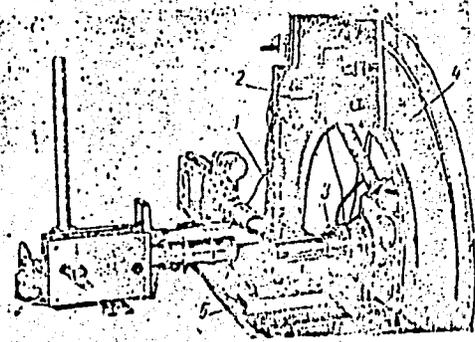


Fig. 1. Experimental setup

The double filming of the welding operation is synchronized with oscillographic recording of current and voltage by means of a time mark whose design and switching circuit are shown in Fig. 2: the connection and disconnection of the electrical circuit are assured by the closing of contacts 2 by shutter 1 of the motion picture camera, represented by a metal disk with a flare

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ACC NR: AP7001837

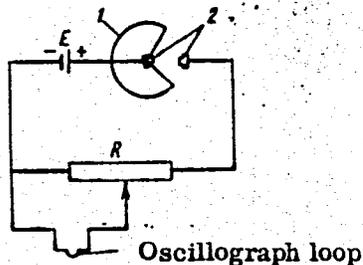


Fig. 2. Design and switching circuit of time mark

angle of  $110^\circ$ . Argon consumption was 140-160 liters/hr. Regulation characteristics were plotted for currents of from 0.7 to 50 a. Findings: processing of the kinograms showed that in the presence of short arcs the arc column is rarely displaced from its axis and the resulting deviation is sufficiently stable in time and readily fixed by means of the kinogram. In subsequent experiments an IP-50 current source was employed to reduce to  $\sim 3\%$  the current deviation accompanying the change in arc length from 0.1 to 5.0 mm. It was found that when the arc length is sufficiently short the linear relationship between voltage and arc length no longer applies and the regulation characteristic becomes nonlinear. This nonlinearity clearly manifests itself when the arc length is 0.5 mm and shorter. Orig. art. has: 4 figures.

SUB CODE: 13, M/ SUBM DATE: none/ ORIG REF: 002

Card 4/4

ACC NR: AP7001838

SOURCE CODE: UR/0135/66/000/012/0014/0015

AUTHOR: Popenko, V. S. (Engineer); Bukarov, V. A. (Engineer); Ishchenko, Yu. S. (Engineer)

ORG: none

TITLE: Programming the regime of pulsating-arc welding of tubes

SOURCE: Svarochnoye proizvodstvo, no. 12, 1966, 14-15

TOPIC TAGS: *steel, metal tube,* automatic programming, thermal analysis method, pulse welding, arc welding / 1Kh18N9T steel

ABSTRACT: The energy introduced into the metal in order to accomplish its uniform fusion may be regulated in two ways: by varying the pulse duration or by altering the welding current intensity. Programming with respect to welding current requires high-power regulation. Hence programming with respect to pulse duration is simpler and more reliable. The design and calculation of the welding arc cycle for the pulsating-arc welding of tubes reduce to the determination of: a) number of welding impulses (weld spots) required for the continuous welding of a tube of a given diameter and thickness; b) duration of pause between impulses; c) duration of

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UDC: 621.791.754=546.293:534:62-503.52:62-462

ACC NR: AP7001838

impulse as a function of the tube material and dimensions. Point a) is determined as a function of the outside diameter of the tube, the outside diameter of the weld spot and the coefficient of overlap of weld spots. As for the pause between impulses, it must be the shortest possible so as to maximize the productivity of the process, yet sufficiently long to assure the solidification of the molten metal in the weld puddle so there would be no flow of molten metal from one weld puddle to the next. As for the duration of the impulse, it must be tailored to the time required to melt the puddle material. It is shown that with the aid of a family of curves of the time dependence of temperature, on employing the graphic method of plotting the thermal cycle (Fig. 1), it is possible to compile a program for the variation of the time required to reach melting point for every individual weld spot during the seam welding. Experimental formulas for determining these factors are presented, and they are used to calculate the pulsating-arc cycle for the welding of non-swivel joints of 22x3 mm tubes of 1Kh18N9T steel, with a welding current of 70 a and voltage of 10 v, at a welding rate of 6 m/hr. The theoretical findings thus obtained were checked by welding specimens of these tubes by means of an ATV-15-40 automatic welding machine in accordance with the experimentally selected program, and were found to be in agreement with the experimental findings. Orig. art. has: 2 figures, 3 tables.

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ACC NR: AP7001838

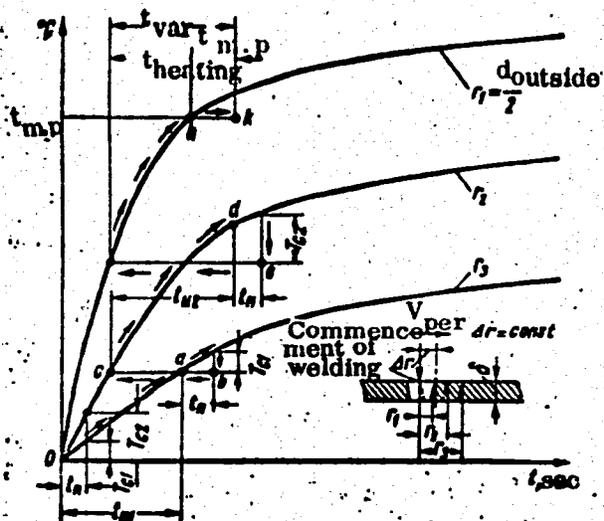


Fig. 1. Diagram for determining the heating time and pulse length as functions of temperature curves. The arrows and letters indicate the sequence of construction of the thermal cycle of the weld spot

SUB CODE: 13, 11/ SUBM DATE: none

Card 3/3

USSR / General Problems of Pathology. Pathophysiology U-3  
of Infectious Process.

Abs Jour: Ref Zhur-Biol., No 15, 1958, 70743.

Author : ~~Dopenkova Z. A.~~

Inst : Not given.

Title : Functional Changes in the Cortex of the Suprarenal  
Glands in Cases of Bacterial Infection and Intoxi-  
cation.

Orig Pub: Vracheb. Delo. 1957, No 7, 767-770.

Abstract: After intervenous injection of warm typhoid vac-  
cine into rabbits, the content of ascorbic acid  
in the suprarenal glands decreased by 40 percent.  
When the rabbits were infected with a pneumococcus  
culture, the content of ascorbic acid decreased by  
60-70 percent, although the weight of the suprarenal  
glands increased in the second case from 372 to 647

Card 1/2

POPENKOVA, I. A.

Med

1242. Content of nucleic acids in the typhoid bacillus and its variation under influence of griseimin. Z. A. Popenkova *Zh. Mikrobiol.*, 1955, No. 12, 67-73; *Referat. Zh. Biol. Khim.*, 1958, Abstr. 14581. — The content of nucleic acids (I) in the typhoid bacillus is closely linked with the process of its multiplication, as is shown by the maximum storage of I at the time of the lag-phase and their further dependence on the intensity of the multiplication: decrease in the period of active multiplication and increase in the period of retarded fission. The stationary phase leads to an impoverishment of the typhoid bacillus in I. A sub-bacteriostatic dose of griseimin, 3 µg./ml. does not change the dynamics of the I content; reduces the content of DNA in the course of the first 2 hours of cultivation (lag-phase and beginning of the phase of logarithmic multiplication), and of RNA in the course of 8 hours. A sub-bacteriostatic dose of griseimin, 15 µg./ml., changes the dynamics of the I content, especially RNA, and reduces the quantity of I in the course of the first two hours of multiplication. Both doses of griseimin diminished the degree of the decrease of I in the period of intense multiplication. (Russian) C. C. BARNARD

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POPENKA, R. R.

YUKHOVSKIY, G.L.; POPENKA, R.R.

Styrene reactions with vegetable oils. Zhur.prikl.khim. 30  
no.4:603-612 Ap '57. (MIRA 10:7)

1. Khar'kovskiy politekhnicheskii institut imeni V.I.Lenina.  
(Styrene) (Oils and fats)

S/191/62/000/009/003/012  
B101/B144

AUTHORS: Yukhnovskiy, G. L., Popenker, R. R., Kuznetsova, V. M.

TITLE: Cold-setting epoxy-acrylate compounds

PERIODICAL: Plasticheskiye massy, no. 9, 1962, 14 - 16

TEXT: With a view to improving the thermostability of cold-setting epoxy compounds and avoiding the need to use toxic hardening agents, the redox copolymerization of epoxy resin with polymethyl methacrylate in the presence of methacrylic acid as hardening agent was investigated. Three compounds were produced. Compound 1: A solution of dimethyl aniline in methyl methacrylate is poured into the ЭД-6 (ED-6) epoxy resin. Polymethyl methacrylate powder is then stirred in, a solution of benzoyl peroxide in methacrylic acid is added (ratio methacrylate:methacrylic acid = 2:1), and a filler is added to the finished compound if necessary. The setting time amounts to 20 - 30 min, thermostability to 88°C according to Martens. For compound 2, dimethyl aniline is dissolved in a mixture of styrene and methyl methacrylate. Since this compound too had a short setting time, the addition of polymethyl methacrylate was omitted for

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Cold-setting epoxy-acrylate...

S/191/62/000/009/003/012  
B101/B144

compound 3. The setting time was 2 - 3 hr. Compounds 2 and 3 with marshalite as filler are suited for casting, or with a mixture of marshalite and asbestos they can be used as putty. The absorption of water after 170 hr was 0.17% for the casting compound and 0.33% for the putty. Compound 3 without filler has low viscosity and is suitable for casting into coils. ✓

Card 2/2

POPENKO, A.K.

Acid formation by acidophilic bacteria in a corn decoction. Trudy  
Inst.mikrobiol.i virus.AN Kazkah.SSR 6:128-132 '62. (MIRA 15:8)  
(CORN(MAIZE)) (ENSILAGE--MICROBIOLOGY)

POPENKO, A.K.

USSR/Pharmacology. Pharmacognosy. Toxicology - Medicinal Plants. T-5

Abs Jour : Referat Zhur - Biologiya, No 16, 1957, 71738

Author : Babusenko, A.M., Yurchenko, M.A., Popenko, A.K.

Inst :

Title : Phytocidal Activity of Some Wild Garlics.

Orig Pub : Uch. zap. kazakhsk. un-ta, 1956, 21, 24-30

Abstract : The phytocidal activity of 6 species of *Allium*, (*A. longicuspis* Rgl., *A. obliquum* L., *A. caesium* Shrenk., *A. decepiens* Fish.; *A. sativum* L. and *A. porrum* L.) was studied. The activity was established by Prof. B.P. Tokin's method by "steaming" for one hour of a freshly planted culture of microorganisms in a Petri dish. It was shown that the volatile fractions and the juice of all tested species of allia possess bacteriocidal properties towards gram-positive and gram-negative microorganisms. The most powerful phytocides appear to be *A. longicuspis* and *A. obliquum*. The maximal activity of the

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SHAMIS, D.L.; BAYAKHUNOV, Ya.K.; POPENKO, A.K.; IL'INA, K.A.; DEMIDENKO, A.F.

Role of micro-organisms in raising the nutritive value of  
millet. Trudy Inst. mikrobiol. i virus. AM Kazakh. SSR 7:  
16-21 '63 (MIRA 16:12)

KARPOV, M.S.; VERNIGOR, V.A.; BAT'KAYEV, R.Ya.; POPENKO, A.K.; IL'INA, K.A.;  
IMRANOV, N.S.; PERSHINA, E.P.

Microbiological processes in surface silage. Trudy Inst.mikrobiol.  
i virus.AN Kazkah.SSR 6:133-140 '62. (MIRA 15:8)  
(ENSILAGE--MICROBIOLOGY)

USSR/Cultivated Plants - Potatoes. Vegetables. Melons.

M

Abs Jour : Ref Zhur Biol., No 12, 1958, 53615

Author : Popenko, A.Kh.

Inst : Donsk Zonal Scientific Research Institute of Agriculture

Title : Two-Crop Potato Culture - The Best Method of Its Accelerated Propagation.

Orig Pub : Dyul. nauchno-tekhn. inform. Donsk. zonal'n. n.-i. in-ta s. kh., 1957, No 1, 23-25

Abstract : A method of securing two potato crops a year was developed by the Rostov Experimental-Selection Station (Aksay Experimental Field). This method is recommended for the propagation of the Rostov, Yuzhanin Ul'yanov varieties. The cultivation of the first crop is carried out for 65-75 days in a manner similar to the forced growth of the early potato. There is an interval of 15-20 days

Card 1/2

- 41 -

POPENKO, A.V.; KULAKOV, N.P., redaktor; IL'YASHENKO, L.V., redaktor;  
OYSTRAKH, V.G., tekhnicheskii redaktor

[Planned maintenance work is a guarantee against breakdowns]  
Planovo-predupreditel'nyi remont - zalog bezavariinnoi raboty.  
Alma-Ata, Kazakhskoe gos. izd-vo, 1956. 12 p. (MLRA 9:10)

1. Glavnyy mekhanik shakhty No. 19 kombinata "Karagandaugol"  
(for Popenko)  
(Coal mines and mining)

POPENKO, H. Ya.

KOTLYAREVSKIY, G.P., inzhener; SIMONOV, A.L., kandidat tekhnicheskikh nauk; POPENKO, A.Ya., kandidat tekhnicheskikh nauk.

Reconditioning of heading machine parts. Ugol' 32 no.4:17-18  
Ap 57. (MIRA 10:5)  
(Mining machinery--Maintenance and repair)

KRIVOSHEY, D.; DRAGUNOV, V.; TYSHKO, V.; KORENYAK, A., starishiy inzh. po tekhnike bezopasnosti; MOLCHANOV, A., rabochiy syr'yevogo tsekha; POVOLOTSKIY, B.; LOBACHEV, L.; SUKHANOV, A.; ZEMLYACHENKO, I.; KOZLOV, A.; POPENKO, F., inzh. (Moskva); SHAPIRO, A.

Editor's mail. Okhr.truda i sots.strakh. 5 no.8:32-33 Ag '62.

(MIRA 15:7)

1. Glavnyy inzh. shakhty "TSentral'naya", Krivoy Rog (for Kirvoshey).
2. Pomoshchnik glavnogo inzh. po tekhnike bezopasnosti shakhty "TSentral'naya", Krivoy Rog (for Dragunov).
3. Nachal'nik ventilyatsii shakhty "TSentral'naya", Krivoy Rog (for Tyshko).
4. Tomskiy podshipnikovyy zavod 5-GPZ (for Korenyak).
5. Kabluchnaya fabrika, g. Nerekhta (for Molchanov).
6. Predsedatel' zavodskogo komiteta Moskovskogo zavoda zhelezobetonnykh izdeliy No.7 (for Lobachev).
7. Transportnaya kontora tresta "Sterlitamakstroy", g. Sterlitamak (for Sukhanov).
8. Predsedatel' mestnogo komiteta gorodskoy tipografii, g. Michurinsk (for Zemlyachenko).
9. Predsedatel' komissii okhrany truda gorodskogo komiteta professional'nogo soyuza meditsinskikh rabotnikov, g. Yevpatoriya (for Kozlov).
10. Vneshtatnyy tekhnicheskyy inspektor Voronezhskogo oblastnogo soveta professional'nykh soyuzov (for Shapiro).

(Industrial hygiene)

POPENKO, L.K.

Minimum discharge of Karelian rivers. Izv.Kar. 1 Kol'. AN BSSR  
no.3:46-56 ' 58. (MIRA 11:12)

1. Otdel gidrologii Karel'skogo filiala AN SSSR.  
(Karelia--Rivers)

POPMKO, L.K.

Lake Tikshozero. Trudy Kar. fil. AN SSSR no. 18:46-65 '58.  
(MIRA 12:10)

(Tikshozero, Lake)

ALEKSANDROV, B.M., nauchnyy sotrudnik; ALEKSANDROVA, T.N., nauchnyy sotrudnik; BELYAYEVA, K.I., nauchnyy sotrudnik; GORBUNOVA, Z.A., nauchnyy sotrudnik; GORDEYEVA-PERTSEVA, L.I., nauchnyy sotrudnik; GORDEYEVA, L.N., nauchnyy sotrudnik; GULYAYEVA, A.M., nauchnyy sotrudnik; DMITRENKO, Yu.S., nauchnyy sotrudnik; ZABOLOTSKIY, A.A., nauchnyy sotrudnik; MAKAROVA, Ye.F., nauchnyy sotrudnik; NOVIKOV, P.I., nauchnyy sotrudnik; POKROVSKIY, V.V., nauchnyy sotrudnik; SMIRNOV, A.F., nauchnyy sotrudnik; STEFANOVSKAYA, A.F., nauchnyy sotrudnik; URBAN, V.V., nauchnyy sotrudnik. Prinimali uchastiye: BALAGUROVA, M.V., nauchnyy sotrudnik; VEBER, D.G., nauchnyy sotrudnik; POTAPOVA, O.I., nauchnyy sotrudnik; SOKOLOVA, V.A., nauchnyy sotrudnik; FILIMONOVA, Z.I., nauchnyy sotrudnik; POPENKO, L.K., nauchnyy sotrudnik; ZYTSAR', N.A., red.; PRAVDIN, I.F., red.; PANKRASHOV, A.P., red.; SHEVCHENKO, L.V., tekhn.red.

[Lakes of Karelia; natural features, fishes, and fisheries] Oзера Karelii; priroda, ryby i rybnoe khoziaistvo; spravochnik. Petrozavodsk, Gos.izd-vo Karel'skoi ASSR, 1959. 618 p. (MIRA 13:8)

(Continued on next card)

ALEKSANDROV, B.M. --- (continued) Card 2.

1. Russia (1917- R.S.F.S.R.) Karel'skiy ekonomicheskiy administrativnyy rayon. Sovet narodnogo khozyaystva. 2. Karel'skoye otdeleniye Vsesoyuznogo nauchno-issledovatel'skogo instituta ozernogo i rechnogo rybnogo khozyaystva (for Aleksandrov, Aleksandrova, Belyayeva, Gorbunova, Gordeyeva-Pertseva, Gordeyeva, Gulyayeva, Dmitrenko, Zabolotskiy, Makarova, Novikov, Pokrovskiy, Smirnov, Stefanovskaya, Urban). 3. Karel'skiy filial AN SSSR (for Balagurova, Veber, Potapova, Sokolova, Filimonova, Popenko).

(Karelia--Lakes)

LAZAREVSKAYA, N.M.; POPENKO, L.K.

Lakes of the Kamennaya Basin: Lake Kamennoye, Lake Livozero,  
Lake Kimasozero, and Lake Nyuk. Trudy Kar.fil.MI SSSR no.18:  
66-113 '58. (MIRA 12:10)  
(Kamennaya Valley--Lakes)

POPENKO, N., inzhener.

Feed mixer and steamer. *Mias.ind.SSSR* 25 no.2:60 '54. (MLRA 7:5)

1. Krasnodarskiy myasotrest. (Feeding and feeding stuffs)

POPENKO, N., inzhener.

Gapless grate bar. *Mias.ind. SSR. 25 no.4:60-61 '54. (MLMA 7:8)*

1. Krasnodarskiy myasotrest.  
(Boilers)

S/169/63/000/002/062/127  
D263/D307

**AUTHOR:** Popenko, S. N.

**TITLE:** On the problem of applying concentrate sampling during the course of prospecting

**PERIODICAL:** Referativnyy zhurnal, Geofizika, no. 2, 1963, 7, abstract 2D44 (Uzb. geologiya zh., Uzb. geol. zh., 1962, no. 2, 59-62 (summary in Uzb.))

**TEXT:** The concentrate sampling method is not at present widely applied in Uzbekistan, leading to a delay in the discovery of placer deposits. Special attention should be paid to this procedure, along with the development of new prospecting methods (geochemical, biochemical, hydrochemical). It is proposed to introduce some corrections into the methods of prospecting at covered or semi-covered slopes and in mountain regions. Prospecting on a scale of 1:10,000 should be carried out in stages. In the first stage, the whole area is prospected by means of usual charting methods, on a smaller scale (1:25,000). More detailed charting to a scale

Card 1/2

On the problem of ...

S/169/63/000/002/062/127  
D263/D307

of 1:10,000 is carried out partly by the same procedure, from observation of outcrops, and partly by the concentrate sampling method. For a given degree of exposure, the latter should replace from 25 to 50% of the points of observation. The degree of detail and density of observational points remains on the whole unchanged. The amount of concentrate samples is determined not only by the degree of grass cover of the locality or by its geomorphological characteristics, but also by the purpose of the prospecting. If the latter is carried out for such minerals as gold, tin, tungsten etc., which are relatively easily collected in concentrates, then the method can be used to a wider extent. Extensive application of the concentrate method will allow a more rapid assessment of the complex of terrigenous formations, which covers large regions of Uzbekistan, and to discover in it useful mineral deposits.  
[Abstracter's note: Complete translation.]

Card :2/2

S/169/63/000/002/062/127  
D263/D307

AUTHOR: Popenko, S. N.

TITLE: On the problem of applying concentrate sampling during the course of prospecting

PERIODICAL: Referativnyy zhurnal, Geofizika, no. 2, 1963, 7, abstract 2D44 (Uzb. geologiya zh., Uzb. geol. zh., 1962, no. 2, 59-62 (summary in Uzb.))

TEXT: The concentrate sampling method is not at present widely applied in Uzbekistan, leading to a delay in the discovery of placer deposits. Special attention should be paid to this procedure, along with the development of new prospecting methods (geochemical, biochemical, hydrochemical). It is proposed to introduce some corrections into the methods of prospecting at covered or semi-covered slopes and in mountain regions. Prospecting on a scale of 1:10,000 should be carried out in stages. In the first stage, the whole area is prospected by means of usual charting methods, on a smaller scale (1:25,000). More detailed charting to a scale

Card 1/2

S/169/63/000/002/062/127  
D263/D307

On the problem of ...

of 1:10,000 is carried out partly by the same procedure, from observation of outcrops, and partly by the concentrate sampling method. For a given degree of exposure, the latter should replace from 25 to 50% of the points of observation. The degree of detail and density of observational points remains on the whole unchanged. The amount of concentrate samples is determined not only by the degree of grass cover of the locality or by its geomorphological characteristics, but also by the purpose of the prospecting. If the latter is carried out for such minerals as gold, tin, tungsten etc., which are relatively easily collected in concentrates, then the method can be used to a wider extent. Extensive application of the concentrate method will allow a more rapid assessment of the complex of terrigenous formations, which covers large regions of Uzbekistan, and to discover in it useful mineral deposits.  
[Abstracter's note: Complete translation.]

Card 2/2

GAMZISHOVA, N.N., studentka V.kursa; GOLOVKO, G.N., student V.kursa;  
KOVAL'TSOVA, V.S., student V.kursa; POPENKO, T.V., studentka V.kursa;  
RUSTAMOV, T., student V.kursa

Neurological disorders in some helminthiases. Sov.med. 25 no.1:  
127-130 Ja '62. (MIRA 15:4)

1. Iz kliniki nervnykh bolezney (rukovoditel' - dotsent V.A.Likhtenshteyn)  
Dagestanskogo meditsinskogo instituta (dir. - dotsent M.M.Maksudov).  
(NERVOUS SYSTEM--DISEASES) (WORMS, INTESTINAL AND PARASITIC)

84609

1,2306 only 2208.2708

S/135/60/000/004/006/008  
A115/A029AUTHORS: Popenko, V.S., Varlamov, I.V., EngineersTITLE: Argon-Arc Welding Equipment for Annular Seams of Stainless Steel  
Parts

PERIODICAL: Svarochnoye proizvodstvo, 1960, No. 4, pp. 29 - 31

TEXT: The article was worked out in collaboration with V.I. Grinenko and V.I. Mironov. Owing to a difference in heat transmission between thin and thick walled items even the slightest deviation from conditions set for welding these objects leads to burns or undertemperatures during the welding process. Therefore, a new apparatus was designed for argon-shield welding of hermetic ring-shaped stainless steel seams with infusible electrode (Fig. 2). Characteristics of objects to be welded: diameter for a length of up to 3 m 8 - 40 mm, length up to 0.5 m 8 - 120 mm.; thickness of welded items: 0.2 - 0.8 mm. Rotation furnished by a MY-320 (MU-320) motor direct current, 100 w, 6,200 rpm. Limits of smooth regulation of rotation of items in rpm: 0.6 - 16.6. Diameter of tungsten electrode 1 - 3 mm. Source of arc tension: 3-phase БСС-100 (VSS-100) selenium rectifier. Smoothness of regulation of welding current 5 - 80 amp. Expenditure of

Card 1/2

POPENKOVA, V.

Conferences. Sov.torg. 35 no.7:36 J1 '62. (MIRA 15:11)

1. Zaveduyushchiy Voronezhskim filialom Zaochnogo instituta  
sovetskoy trgovli.  
(Voronezh--Distributive education)

L 20544-66 EWT(m)/EWP(v)/T/EWP(t)/EWP(k) JD/HM  
ACC NR: AP5023077 SOURCE CODE: UR/0125/65/000/009/0005/0007

AUTHOR: Alekin, L.Ye. (Candidate of technical sciences); Zorin, Yu.H. (Candidate of technical sciences); Razzhivin, V.N. (Engineer); Guma, V.V. (Engineer) (Moscow); Popenko, V.S. (Engineer) (Moscow) 57 B

ORG: none

TITLE: Determination of the volt ampere characteristics of a low-current welding arc

SOURCE: Avtomaticheskaya svarka, no. 9, 1965, 5-7

TOPIC TAGS: volt ampere characteristic, arc welding, welding, welding electrode, arc discharge, arc property

ABSTRACT: A method of determining volt ampere characteristics of a low-current arc in argon is described. It is shown that the error in arc column and length determinations can be eliminated by photographing the arc with two cameras arranged at right angles to each other. A clear picture of the entire area including the electrode, weld, cathode spot, anode spot, and column can be obtained with the aid of additional rings and light filters. The true distance between the tip of the electrode and the weld in the presence of a flash arc is determined within an accuracy of 0.01 mm by taking into account the thermal expansion of the electrode. The arc is ignited on a special pipe with escalated ribs fusible in the molten pool in order to eliminate

UDC: 621.791.856

Card 1/2

L 20544-66

ACC NR: AP5023077

measurement errors due to sinking of the arc in the base metal and to obtain a molten pool at any welding current. This method was used in determining the static volt ampere characteristic and the relationship between the arc current and gap in argon welding with a nonfusible tungsten electrode. Orig. art. has: 4 figures.

SUB CODE: 13,09

SUBM DATE: 22Jun64

ORIG REF: 004

Card

2/2 *LJC*

POPENOV, D., red.; KRUGMAN, M., red.; SVET, Ye. B., red.; KOLEBICHEV, V. I.,  
tekh. red.

[Efficient use of measuring equipment; experience of the  
Chelyabinsk Plants] Ratsionalizatsiia v izmeritel'noi tekhnike;  
iz opyta raboty Cheliabinskikh zavodov. Cheliabinsk,  
Cheliabinskoe knizhnoe izd-vo. No. 3. 1959. 41 p.

(MIRA 14:5)

(Measuring instruments--Maintenance and repair)

1077 NOV 19 1951

USSR

Etching of metals by an electrical discharge in gas. I. I. Ponomareva and A. I. Primer, *Zavodskaya Lab.* 21, 492 (1955). A method is described for etching metals in a slow elec. discharge through the atomization of the oxides on the surface of the metal specimens, as a means of prep. the specimens for electron-microscope observations. Tests show that products which are not firmly held, such as intercryst. layers, become most readily atomized. The etching can be carried out in low-pressure Ne or Ar under a bell jar, or (preferably) in a 2-electrode gas tube with sealed-in electrodes. The optimum etching conditions for most metals and alloys are 5 kv., 5 ma., and 0.1 mm. Hg pressure of Ne, although a variable voltage and more gentle discharge is preferred for the more fusible and the more readily atomizable metals and alloys (Zn, Cu, brass, etc.), e.g. a c.d. not in excess of 0.8 ma./sq. cm., a voltage below 2-3 kv., at 0.1 mm. Hg gas pressure. Some metallurgical photomicrographs (312x) and parallel electron-microscope photographs (11,000x) of Fe, grainy pearlite, and flake pearlite in steel illustrate the results obtained with the slow discharge.

W. M. Sternberg

Handwritten notes and signatures: "d", "P/V", "S.M.B.", and a large signature.

DANILOV, G.Ye.; VLASOVA, I.N., studentka; PIROGOVA, Ye.I., studentka;  
POPENOVA, E.A., studentka

Importance of the original functional state of the central  
nervous system in the change of the intraocular pressure during  
chronic painful irritation. Trudy Izhev.gos.med.inst. 21:44-47 '62.  
(MIRA 1961)

1. Kafedra normal'noy fiziologii (zav. - dotsent A.P.Vereshchagin)  
Izhevskogo meditsinskogo instituta.

POPENS, Ya. [Popens, J.]; SILIN'SH, E. [Silins, E.]; VITOLS, I.;  
Prinimala uchastiye FREIMANE, T. [Freimane, T.]

Fluorometric determination of 11-hydroxycorticosteroids in human  
blood plasma. Vop. med. khim. 8 no.6:628-634 N-D '62.  
(MIRA 17:5)

1. Institut eksperimental'noy i klinicheskoy meditsiny AN  
Latviyskoy SSR, fiziko-matematicheskii fakul'tet Latviyskogo  
universiteta imeni Petera Struchka, Riga.

SILIN'SH, E.A. [Silins, E.]; POPENS, YA.YA. [Popens, J.]; EYDUS, Ya.A.  
[Edius, J.]

Spectrophotometric and fluorimetric determination of corticosteroid hormones. Izv. AN SSSR.Ser.fiz. 26 no.10:1311-1313 '62. (MIRA 15:10)

1. Latviyskiy gosudarstvennyy universitet im. Petra Stuchki i  
Respublikanskaya klinicheskaya bol'nitsa im. Paulya Stradynya.  
(HORMONES) (SPECTROPHOTOMETRY) (FLUORIMETRY)

POPER, E.

ROMANIA/Analytical Chemistry. Analysis of Inorganic  
Substances.

E-2

Abs Jour: Ref Zhur-Khim., No 13, 1958, 43027.

Author : Poper E., Popa L., Junie V., Roman L.

Inst :

Title : New Gravimetric Method for a Rapid Determination of  
Cadmium.

Orig Pub: Rev. chin., 1957, 8, No 11, 714-716.

Abstract: On interaction of  $Cd^{2+}$  with monophenyl-hydra-  
zodicarbon-thioamide  $C_6H_5.NHC=N(SH)H_2N$  (I) in  
neutral medium, there is formed a stable white  
precipitate which is insoluble in water,  $C_2H_5OH$   
and ether. I is readily synthesized from phenyl-  
isothiocyanate and thiosemicarbazide in the pre-  
sence of pyridine, and is a white powder, MP

Card : 1/3

RUMANIA/Analytical Chemistry. Analysis of Inorganic  
Substances.

E-2

Abs Jour: Ref Zhur-Khin., No 13, 1958 43027.

175-176°, soluble in  $C_2H_5OH$ , acetone, pyridine, and alkalis, and insoluble in water and in acids. In determining Cd there is added an equal volume of  $C_2H_5OH$  to 10-15 ml of a solution containing 0.01-0.15 g  $CdSO_4$  or  $Cd(CH_3COO)_2$ , the mixture is heated on a water bath, and there is added, dropwise and with continuous stirring, an alcoholic solution of I (0.5 or 1 g I per 100 ml  $C_2H_5OH$ ) after which the mixture is kept for 15 minutes on a water bath. The precipitate that is formed is filtered off, washed first with warm 50%  $C_2H_5OH$ , then with 96%  $C_2H_5OH$  (2-5 ml) and ether (3-5 ml), dried at 105-110° for 20-30 minutes, and weighed. If the solution being analyzed is weakly acidic, 1 ml of 2 N  $CH_3COONa$

Card : 2/3

8

POPERECHENKO, B.A.

Electromagnetic surface waves on a cylinder with a layer. Nauch.  
dokl.vys.shkoly; radiotekh. i elektron. no.2:42-50 ' 58.

(MIRA 12:1)

1. Kafedra antenykh ustroystv i rasprostraneniya radiovoln Moskov-  
skogo energeticheskogo instituta.  
(Radio waves)

POPERECHENKO, B. A.

Excitation of a cylinder with a layer. Nauch.dokl.vys.shkoly;  
radiotekh. i elektron. no.4:46-53 '58. (MIRA 12:6)

1. Kafedra antennykh ustroystv i rasprostraneniya radiovoln  
Moskovskogo energeticheskogo instituta.  
(Electromagnetic waves) (Radio--Antennas)

POPERECHENKO, B.A.; VEREVKIN, S.M., kand. tekhn. nauk, red.

[Antenna-feeder devices] Antenno-fidernye ustroistva.  
Moskva, Mosk. energ.in-t. Pt.2. [Transmission lines]  
Liniy peredach. 1961. 76 p. (MIRA 16:8)  
(Wave guides) (Antennas (Electronics))  
(Microwaves)

66314

SOV/162-59-1-8/27

~~24 (7)~~ 9.3700

AUTHOR: Poperechenko, B.A.

TITLE: The Excitation of a Large-Diameter Cylinder With a Layer

PERIODICAL: Nauchnyye doklady vysshey shkoly, Radiotekhnika i elektronika, 1959, Nr 1, pp 62-72

ABSTRACT: The author presents a transformation of general solutions of the problem of electromagnetic excitation of a thick metal cylinder with a layer to obtain an exact substitution of slowly converging series by integrals which may be subjected to approximated calculation. This paper is based on the author's previous work [Ref 3] in which the general solution of the Maxwell equations was used in the form obtained by G.T. Markov [Ref 4]. The basic difficulty of using the formulas of the preceding paper [Ref 3] for calculations is the poor convergence of the Fourier series for the function of the coordinate  $\psi$  with large cylinder diameters. In case of sufficiently large diameters, this

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The Excitation of a Large-Diameter Cylinder With a Layer

difficulty may be overcome, if the obtained summation of the Fourier series is replaced by a definite integral. The idea of this operation is known since the 19th century and was used for solving diffraction problems on a large-diameter ball. It was developed by B. A. Vvedenskiy [Ref 5] and V.A. Fok [Ref 6]. The Fourier series is considered as an infinite sum of residues in the plane of complex wave numbers  $\nu$ , referring to waves which are propagated along the coordinate  $\varphi$ ; such a sum of residues is replaced by a contour integral which is then calculated by one of the known approximation methods. This approach may be used for the solution of a number of other analogous problems, especially, for calculating fields in the presence of a large-diameter cylinder. A.S. Goryainov's paper [Ref 8], which was published recently, deals with this problem. In subject paper the method has been extended to the expression of the field which is excited by arbitrary sources in the entire space, under consideration.

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The Excitation of a Large-Diameter Cylinder With a Layer

on of the influence of the magneto-dielectric layer covering the cylinder. The integrals obtained are separated into two series. One section is calculated by the "pereval" method and the other one by using the theory of residues. In this case, different asymptotic expressions of cylindrical Debye functions are used. The borders of applicability of the results obtained by this method are indicated. The limitations are caused by the Debye functions and may be eliminated by using other asymptote methods, for example the cylindrical functions of the order of  $1/3$  [Ref 9]. However, the application of these functions complicates the approximated and accurate calculations and the analysis of their results. This gap was filled by the recent work of A.S. Goryainov [Ref 8] who used complex "Eyri" functions for the summation of slowly converging series. Nevertheless, additional research is required of a cylinder with a layer. The author expresses his gratitude to Docent Yu.I. Gros-

Card 3/4

POPERECHNYY, A.

Building "large chemistry" and construction Bank control. Fin.  
SSSR 21 no.3:22-27 Mr '60. (MIRA 13:3)

1. Nachal'nik otдела pravleniya Stroybanka SSSR.  
(Banks and banking) (Chemical industries--Finance)

POPERECHNYY, A.; KOROBKOVA, Ye.

Subject the construction of enterprises manufacturing mineral  
fertilizers to a strict control. Fin. SSSR 22 no.8:35-39  
Ag '61. (MIRA 14:8)

(Banks and banking)  
(Construction industry--Finance)  
(Agricultural chemicals)

POPEREKO, A. (Krasnodarskiy kray); ANDREYEV, A. (Kansk Krasnoyarskogo kraya);  
ANDRIYENKO, inzh. (Bilibino Magadanskoy obl.); SALIM ZADE, R. (Baku);  
DENDIYAYEV, V. (Baku); LAARING, A., inzh.-konstruktor (Tallin);  
SHURAVIN, A. (Kaliningrad Moskovskoy obl.); LYSIKHA, P., konstruktor  
(Lugansk)

Conceived and achieved. Izobr. i rats. no.7:10-11 '63.

(MIRA 16:9)

(Technological innovations)

ПОПЕРЕКА, М.Я.

"Note on the Analysis of the Critical Velocities of Smooth Rollers on Trip Bearings" Dokl. AN Tadzh SSR, No 10, 1954, 81-85

The author examines the influence of a uniformly distributed gyroscopic moment, created by the mass of a roller, on its proper frequencies of various orders. He shows that the angular velocity of the roller  $\omega$  and the proper frequencies  $k$  are related by the dependence  $\omega = k^2 \sqrt{a} b$ , where  $a$  and  $b$  are coefficients depending upon the geometric dimensions of the roller and the order of frequency  $k$ . (RZhMekh, No 9, 1955)

POPEREKA, M.Ya.

Applicability of Golitsyn's parallelepipeds for measuring seismic velocities. Izv.Otd.est.nauk AN Tadsh.SSR no.9: 57-62 '55. (MLRA 9:10)

1. Tadshikskiy sel'skokhozyaystvennyy institut.  
(Seismometry)

LYADSKIY, V.B.; POPEREKA, M.Ya.

Effect of grinding factors on the roughness of finished surfaces.  
Izv.Otd.est.nauk AN Tadsh.SSR no.9:63-67 '55. (MLRA 9:10)

1. Tadshikskiy sel'skokhozyaystvennyy institut, Kafedra  
tehnologii metallov.

(Metal cutting)

POPEREKA, M.Ya.

Effect of frame hardness on the distribution of load in the components  
of radial bearings. Dokl.AN Tadzh.SSR no.14:65-69 '55. (MLRA 9:9)

1.Tadzhikskiy sel'skokhozyaystvennyy institut.  
(Bearings (Machinery))

POPEREKA, M.Ya.

Remarks on the problem of overturning bodies during earthquakes  
(a review of P.M.Drachuk's article). Izv.Otd.est.nauk AN Tadzh.SSR  
no.13:167-170 '56. (MLRA 9:10)

1.Tadshikskiy sel'skokhozyaystvennyy institut.  
(Seismology)

POPEREKA, M.Ya.

Allowance for the diameter of roller bodies as a factor in bearings' durability. Dokl. AN Tadzh.SSR no.15:45-49 '56. (MLRA 9:10)

1. Tadshikskiy sel'skokhozyaystvennyy institut.  
(Bearings (Machinery))

POPEREKA, M. Ya.

Evaluation of the effect of roller precision on play in radial roller bearings. Dokl. AN Tadzh. SSR no. 15:51-55 '56. (MLRA 9:10)

1. Tadshikskiy sel'skokhozyaystvennyy institut.  
(Roller bearings)

POPEREKA, M.Ya.

AUTHOR:  
TITLE:

POPEREKA, M.Ya.

32-6-26/54

The Determination of Interior Tensions in Electrolytic Coatings after Bending of the Flat Cathode. (Opredeleniye vnutrennikh napryazheniy v elektroliticheskikh pokrytiyakh po izgibu ploskogo katoda, Russian)

PERIODICAL:

Zavodskaya Laboratoriya, 1957, Vol 23, Nr 6, pp 720-725 (U.S.S.R.)

ABSTRACT:

The determination of interior tensions in electrolytic coatings is carried out radiographically or by measuring cathode deformation. In the latter case circumstances are created by which the coated cathode acquires the property of becoming deformed in the covering layer under the influence of internal forces. By measuring this deformation it is possible to judge the strength of internal tensions. It is upon this that the present method has been worked out.

The following conclusions are drawn:

- 1.) The present method of determining internal tensions after a metal electron precipitation is based upon wrong conclusions and leads to errors.
- 2.) The elastic line of the bent cathode forms a cubic parabola.
- 3.) The initial tensions in the coating layer have the greatest practical importance.

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32-6-26/54

The Determination of Interior Tensions in Electrolytic Coatings  
after Bending of the Flat Cathode.

- 4.) The method recommended here is of advantage because of its good reproducing properties and because it is independent of the size and material of the cathodes, so that errors are avoided. (With 8 Illustrations, 9 Formulae and 2 Tables)

ASSOCIATION: The Kazakhstan State Agricultural Institute

PRESENTED BY:

SUBMITTED:

AVAILABLE: Library of Congress

Card 2/2

POPEREKA, M.Ya.; FRUSIN, K.S.

Studying internal strains in metals during electrodeposition by the  
use of a disc cathode and ohmic indicator. Vest. AN Kazakh. SSR 14  
no.2:84-91 F '58. (MIRA 11:2)

(Strains and stresses)

(Electrolysis)

32-3-44/52

AUTHOR: Popereka, M. Ya.

TITLE: The Application of a Mirror Device for the Determination of Interior Stresses in Electrolytic Coatings (Ispol'zovaniye zerkal'nogo pribora dlya opredeleniya vnutrennikh napryazheniy v elektroliticheskikh pokrytiyakh)

PERIODICAL: Zavodskaya Laboratoriya, 1958, Vol. 24, Nr 3, pp. 366-366 (USSR)

ABSTRACT: A measuring method was developed which offers more advantages than that of the spiral contractometer developed by Brenner and Senderoff Ref.2 . The device is smaller, lighter, and less expensive, and is able to operate with a sensitivity that is fifteen times greater. A spiral cathode upon which the electrolyte coating forms is rigidly connected with a small mirror. While the electrolyte forms deposits, internal stresses are produced which cause the spiral cathode to revolve together with the mirror. A ray of light incident upon the mirror thus changes its direction. The interior of the spiral has a coating of insulating varnish. A schematic drawing of the electrode showing clearly in what way the mirror is mounted, and also showing the spiral itself is

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The Application of a Mirror Device for the  
Determination of Interior Stresses in  
Electrolytic Coatings

32-3-44/52

attached. There are 1 figure, and 2 references, 1 of which is  
Slavic.

ASSOCIATION: Kazakh State Institute for Agriculture (Kazakhskiy gosudarstvennyy  
sel'skokhozyaystvennyy institut)

AVAILABLE: Library of Congress

1. Electrolytic coatings-Stresses-Determination
2. Mirrors-Applications

Card 2/2

AUTHORS: Popereka, M.Ya., Docent, Candidate of SOV/32-24-9-50/53  
Technical Sciences, Fraktor, A.M., Candidate  
of Technical Sciences, Frusin, K.S., Engineer,  
Martynenko, A.A., Engineer, Famil'tsev, D.N., Engineer

TITLE: On the Determination of the Interior Stress of Galvanic Coatings  
(Ob opredelenii vnutrennikh napryazheniy v gal'vanicheskikh pokrytiyakh). On the Occasion of the Article by Sh.Z.Zakirov and Yu.N. Petrov, Published in the Periodical "Zavodskaya laboratoriya", Nr 12, 1957 (Po povodu stat'i Sh.Z.Zakirova i Yu.N. Petrova, opublikovannoy v zhurnale "Zavodskaya laboratoriya", Nr 12, 1957g.)

PERIODICAL: Zavodskaya Laboratoriya, 1958, Vol 24, Nr 9, pp 1164-1165 (USSR)

ABSTRACT: The article mentioned in the title contains formulae for the determination of stresses which cannot yield exact results and besides, are not new. This type of calculating stresses was already carried out by M.L. Pertscvskiy (Ref 1), as well as by Brenner and Senderoff (Brenner and Senderoff) (Ref 2), and by the authors of the present article. One of the equations mentioned is actually only an alteration of the equation already suggested by Stoney (Ref 4) in 1909. In the further explanations it is mentioned among other facts in this paper that the calculation of Zakirov and

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On the Determination of the Interior Stress of  
Galvanic Coatings. On the Occasion of the Article by  
Sh.Z. Zakirov and Yu.N. Petrov, Published in the Periodical  
"Zavodskaya laboratoriya", Nr 12, 1957

SOV/32-24-9-50/53

Petrov does not make a classification of the stress of the coatings possible. It is also mentioned that the calculation of the stress according to the radius of the curve has a number of deficiencies. It is, for instance, not possible to carry out any measurements during the electrolysis. For these reasons the methods suggested by Pertsovskiy and A.T. Vagramyan and Yu.S. Tsareva (Ref 5) and others are better. Finally the editors mention at the end of this article that they agree in principle with this critical comment. There are 5 references, 3 of which are Soviet.

Card 2/2

POPEREKA, M.Ya.; KOSHMANOV, V.V.

Structure and internal stresses of zinc electrodeposited in the presence of alcohols. Izv.vys.ucheb.zav.; khim.i khim.tekh. 7 no.6:967-972 '64. (MIRA 18:5)

1. Novosibirskiy pedagogicheskiy institut i Krasnoyarskiy politekhnicheskiy institut.

POPEREKA, M.Ya.; KOSHMANOV, V.V.

Effect of organic additives on crystallization stresses and the  
microstructure of zinc deposits. Izv. vys. ucheb. zav.; tsvet.  
met. 8 no.1:73-79 '65. (MIRA 18:6)

1. Novosibirskiy pedagogicheskiy institut, kafedra obshchey  
fiziki.

POPEREKA, M.Ya.; AVRAMENKO, O.I. (Novosibirsk)

Electrolytic deposits of bismuth with high internal stresses. Zhur.  
fiz. khim. 39 no.3:561-568 Mr '65. (MIRA 18:7)

1. Krasnoyarskiy politekhnicheskii institut.

LEEDEVA, V.N.; POPEREKA, M.Ya.

Internal stresses of antimony electrodeposited from a chloro-antimonate electrolyte. *Elektrokhimiya* 1 no.6:723-726 Je '65. (MIRA 18:7)

1. Novosibirskiy gosudarstvennyy pedagogicheskiy institut.

L 1661-66 EWT(m)/EWP(i)/EWP(t)/EWP(b) IJP(c) JD

ACCESSION NR: AP5021413

UR/0076/65/039/008/1875/1879  
541.13

AUTHOR: Popereka, M. Ya.; Avramenko, V. I.

TITLE: Internal strains of cadmium electroplated by application of an alternating current

SOURCE: Zhurnal fizicheskoy khimii, v. 39, no. 8, 1965, 1875-1879

TOPIC TAGS: cadmium electroplating, internal strain, cadmium electrodeposit

ABSTRACT: The effect of the electrolyte temperature and of the frequency, amplitude, and density of alternating current on primary and secondary strains in cadmium electrodeposits was studied under various electrolysis conditions. At 10-40°C and current densities of 0.1-1 a/dm<sup>2</sup>, a rise in the electrolyte temperature increases the initial strains  $\sigma_0$ , which characterize the tendency of the deposited cadmium to expand; this effect becomes more pronounced with decreasing current density. When a sinusoidal alternating current is applied, the initial crystallization strains decrease. As the frequency rises, this effect becomes weaker, but increases with the amplitude of the alternating current. At relatively high current densities

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ACCESSION NR: AP5021413

(1 a/cm<sup>2</sup>), the effect of the alternating current declines with rising temperature. At a low density of the direct current (0.6 a/dm<sup>2</sup>), the effect of the alternating current is relatively independent of temperature. As the density of the direct current rises, the effect of the alternating current (at a constant ratio of both currents) increases at first, then declines. The alternating current has no direct effect on the course of post-crystallization structural transformations taking place in the deposit; it affects the extent and rate of such processes only by changing the magnitude of the initial crystallization strains. Orig. art. has: 7 figures.

ASSOCIATION: Novosibirskiy elektrotekhnicheskii institut svyazi (Novosibirsk Communications Electrical Engineering Institute)

SUBMITTED: 10Jan64

ENCL: 00

SUB CODE: MM

NO REF SOV: 010

OTHER: 000

Card 2/2 *DP*

L 12031-66 EWT(m)/EWP(t)/EWP(b) JD  
AGG NR: AT5022662 SOURCE CODE: UR/0365/65/001/005/0539/0542

AUTHOR: Ayramenko, V. I.; Poverska, M. Ya.

ORG: Novosibirsk Electrotechnical Institute of Communications (Novosibirskiy  
electrotekhnicheskiy institut svyazi)

TITLE: Internal stresses in a-c deposited chromium plate 14

SOURCE: Zashchita metallov, v. 1, no. 5, 1965, 539-542

TOPIC TAGS: electrolytic deposition, alternating current, cathode polarization,  
metal coating, chromium plating, tensile stress, hardness

ABSTRACT: A study was made of the effect of alternating sinusoidal current on cathode polarization, internal stress, and microhardness of chromium coatings deposited at 5600 from an electrolyte containing CrO<sub>3</sub> and H<sub>2</sub>SO<sub>4</sub> in the amounts of 160 and 1.6 g/l, respectively. The cathode polarization was measured oscillographically, and the microhardness was determined by the PMT-3 apparatus at 200 g pressure on the indenter. The value of the internal stresses in chromium depended on the thickness of the deposited layer: it decreased from 9 x 10<sup>8</sup> newton/m<sup>2</sup> in 0.2 μ coatings to 10<sup>8</sup> n/m<sup>2</sup> in 5 μ coatings. Therefore, all measurements and

UDC: 621.357.7  
541.135.7

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L 12031-66

ACC NR AP5022662

calculations were made at a constant thickness of  $0.2\mu$ . Internal tensile stress decreased with increase in the amplitude of the a-c component. At relatively low d-c densities ( $30 \text{ amp/ dm}^2$ ) and comparatively high a-c densities, the internal stresses changed their sign. Thus, alternating current may be one of the factors permitting production of stress-free chromium plate. The internal tensile stresses decreased with increased frequency of the alternating current (in sonic ranges), but less so than during increased amplitudes and without changing the sign of internal stress. The frequency dependence on current efficiency was complex: in the range of 50-500 cps the current efficiency decreased with increased frequency, but it increased with increased frequency at frequencies  $> 500$  cps. The microhardness of chromium coatings decreased with increased amplitude of the alternating current. The curve of the frequency effect on the microhardness had a minimum at frequencies of 400 - 500 cps. The oscillograms of cathode polarization indicated that the application of sinusoidal current affected the displacement of the average value of the cathode potential to the anode side, i.e. it resulted in the depolarization of the electrode. Orig. art. has: 3 figures.

SUB CODE: 07,20/SUBM DATE: 14Dec64/ ORIG REF: 007/ OTH REF: 003

2/21

POPEREKA, M.Ya.

Origin of internal stresses in electrolytically deposited  
metals. Fiz.-met. i metalloved. 20 no.5:753-762 N '65.  
(MIRA 18:12)

1. Novosibirskiy pedagogicheskiy institut. Submitted  
November 2, 1964.

0582007 FRT(L)/ZRP(L)/ETI LSI(c) JD

ACC NR: AR6020946

SOURCE CODE: UR/0137/66/000/002/1073/1073

25  
24  
17 B

AUTHOR: Popereka, M. Ya.

TITLE: Postelectrolytic microstructural changes in electrolytic zinc and bismuth de-  
posits

SOURCE: Ref. zh. Metallurg, Abs. 21495

REF SOURCE: Sb. Elektroosazhd. met. i ul'trazvuk. mikrodefektoskopiya kristallov.  
Novosibirsk, 1965, 25-31

TOPIC TAGS: zinc, bismuth, metal grain, electrolytic deposition

TRANSLATION: Zn and Bi were deposited on carefully flattened surfaces of polished and electrolytically degreased Cu-sheets. The thickness of the deposit was 10  $\mu$ . In order to develop the grain of the metal at the final moment of deposition, poles were switched and for 30 sec anodic etching of the surface of the Me deposit was performed in the same electrolyte. For Zn, the electrolyte was ZnSO<sub>4</sub> (50 g/l), while for Bi it was 48 g/l of BiCl<sub>3</sub> and 117 ml/l HCl. A visible microstructural change occurs in both cases in approximately 1 hr. Upon addition of alcohol to the ZnSO<sub>4</sub> electrolyte, the speed of the structural changes was substantially diminished. Two mechanisms were designated: 1) the visible change of structure was associated with a large amount of in-

UDC: 669.5.017+669.76.017

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ACC NR: AR6020946

10  
ternal stress in the deposits; 2) the addition of adsorptive ingredients to the electrolyte retards the structural changes in a number of cases. V. Kuz'mina.

SUB CODE: 11

Card 2/2 *egh*